

Intel Corporation
Annual Report 1978



Ten years ago Intel was known only to a small group of employees and investors who had the dream of making large scale integrated circuits (LSI) a reality. Today Intel and its products are widely known, and are shaping the future of not only the electronics industry but many others as well.

A key element of this success has been the active pursuit of the future by Intel people which has pushed the company into leadership in advanced electronics. This has been accomplished by successful investment in the research and development of advanced technology and in modern production facilities. As a result, each year our customers have been offered products which do more and cost less even in an inflationary environment.

Because of the continuing trend to lower and lower cost large scale integrated circuits, electronic techniques are finding progressively wider areas of application. Familiar examples are the electronic calculator, digital watch and electronic game. More significant perhaps, to our society, are the applications in communications, computers, and control, where LSI is displacing mechanical or electro-mechanical techniques and offering more capability at lower cost. The results can be seen in the ever widening use of distributed data processing and information handling, or in the use of the microcomputer to control the engine in automobiles for increased efficiency and lower pollution.

Although these results have been evolutionary from the first integrated circuit (IC) in 1960 through medium-scale (MSI) and large-scale integrated circuits, the overall effect has indeed been revolutionary. A new term, very

large scale integration (VLSI) has been used to describe current developments, even though they are a confirmation of the trend. VLSI design and production techniques are becoming even more sophisticated, increasing design costs, and requiring more expensive equipment. Yet the final result is a lower product cost.

Even though phenomenal technological advances have been made in the last decade, the next decade promises further advances. The fundamental physical limits to improving semiconductor components are far away, at perhaps one hundred times the complexity of today's products. New techniques in lithography, new techniques for managing complexity and new market areas are needed, but the development of each is well underway.

Intel's 1978 revenue and earnings set new records. Revenue increased by 42% to \$401 million while earnings increased by 40% to \$44 million or \$3.24 per share. The company's capital base expanded dramatically as fixed assets increased by 91% to \$212 million and total assets grew by 61% to \$357 million. This rapid growth produced a need for funds in excess of those generated internally. This resulted in short-term debt of \$44 million at year end. Expansion and construction at several facilities are continuing into 1979. Barring a major softening of the world's economy, capital investment will remain high next year and we will probably need additional external funding. Fortunately our financial strength should enable us to obtain these funds.

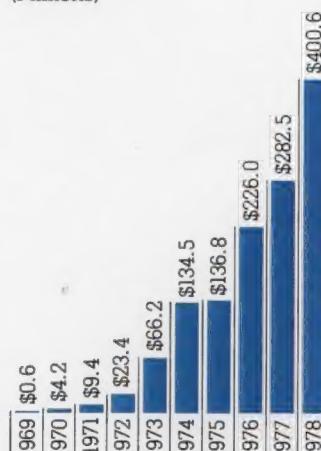
Demand for our products was very strong all year with bookings far exceeding shipments. This strength has continued through the end of the year. To keep up, we have added employees and facilities at rates unprecedented in Intel's ten-year history. Even so, we have not been able to grow as fast as the market demand in some product areas. Our concentration in the areas we pioneered—semiconductor memories and microcomputer components and systems—has positioned us in one of the fastest growing parts of the electronics industry. We envision the opportunity to continue to grow rapidly for many years. Our challenge is to channel and control this growth so that Intel remains strong and is able to support the expanding needs of our customers throughout the world.

We expended much effort during the year to diversify geographically. We feel that we have grown

beyond the size where we should remain concentrated in the San Francisco Bay Area. During the year, we completed the move of several groups including the headquarters of the Memory Components Division to Aloha, Oregon. In 1979 we expect to establish major activities near Phoenix, Arizona. Both these moves should allow us considerable opportunity for expansion.

Worldwide usage of semiconductor memory continues to expand rapidly as costs decrease and an increasingly broad range of products becomes available. For instance, 4K and 16K dynamic RAMs are providing memory for many applications besides large computers. Static RAMs have increased in relative importance for Intel as our HMOS line of high-speed metal-oxide-semiconductor memories serves an increasing fraction of the requirements for fast-access data storage. Customer-programmable EPROMs, which store information until erased by exposure to ultraviolet light, have

Revenues
(Millions)



evolved from a prototyping component to full production usage by many customers. This Intel invention has been of considerable importance in the growth of the microcomputer market by offering a simple method for the customer to prepare and alter programs. Intel recently added a 32K EPROM to its product line.

Our family of microcomputers was expanded significantly during the year. Several additional single chip microcomputers were introduced offering a variety of features such as additional on-chip memory and the integrated capability to convert analog signals to digital. In addition, Intel introduced its first 16-bit word length microprocessor, the 8086. This advanced device extends the performance of Intel's family of processors to ten times the capability of the 8080 and offers many advanced architectural features not previously available in microprocessors. Several customers have already committed to equipment designs that incorporate the 8086 either directly or in the 86/12 single board computer made by our Microcomputer Systems Division.

Nowhere is the breadth of interest in microcomputers easier to discern than from the number

of the customers purchasing our Intellec® microcomputer development systems. The Intellec Series II, introduced in early 1978, has been purchased by many of the world's largest corporations. In addition the availability of the Intellec products has enabled many companies to get started in the microcomputer field. The capability and range of options on these systems continues to expand as we introduce microprocessors of increasing sophistication. As part of Intel's commitment to complete support of our microcomputer products, development systems are important in retaining our leadership.

We have announced Intel's intention to acquire MRI Systems, Inc., an Austin, Texas based supplier of software systems for database management. This merger will add major software capability to Intel and will establish a base for growth in a new but related field. MRI will operate as part of the Commercial Systems Division.

The growth last year has been most apparent in the new faces appearing throughout Intel facilities. Our total growth of 2,800 employees or 35% during the year

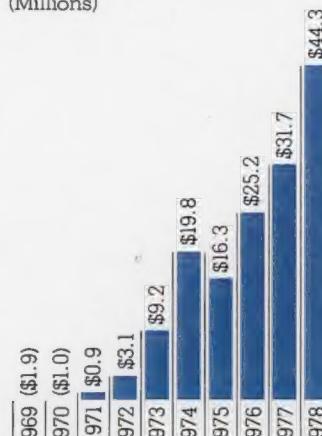
tells only a portion of the story, since nearly all that growth was in the United States. Our overseas assembly plants grew comparatively little as the installation of automated assembly equipment increased productivity to keep up with the increased unit volume. The growth in Intel's employment put a special burden on our longer-term employees to train the newcomers and help them become productive. We are proud that even with this additional load, our people have been able to continue Intel's growth while maintaining our profitability.

Gordon E. Moore
President and
Chief Executive Officer

Robert N. Noyce
Chairman of the Board

Net Income

(Loss)
(Millions)



Financial Summary

For the five years ended December 31, 1978
(Thousands—Except Per Share Amounts)

	1974	1975	1976	1977	1978
Net revenues	\$134,456	\$136,788	\$225,979	\$282,549	\$400,620
Cost of sales	67,909	67,649	117,193	143,979	196,376
Research and development costs	10,500	14,541	20,709	27,921	41,360
Marketing, general and administrative expenses	15,369	21,386	36,620	47,503	76,333
Taxes on income	20,902	16,938	26,243	31,430	42,237
Net income	\$ 19,776	\$ 16,274	\$ 25,214	\$ 31,716	\$ 44,314
Earnings per capital and capital equivalent share (D)	\$ 1.58	\$ 1.25	\$ 1.90	\$ 2.38	\$ 3.24
Capital and capital equivalent shares used in per share calculations (D)	12,520	13,000	13,276	13,317	13,694

Financial Information by Quarter

(Thousands—Except Per Share Amounts)

	March 31	June 30	Sept. 30	Dec. 31
1978				
Net revenues	\$80,256	\$93,682	\$106,864	\$119,818
Cost of sales	39,410	45,954	52,864	58,148
Research and development costs	8,640	9,803	11,017	11,900
Marketing, general and administrative expenses	15,057	17,057	20,760	23,459
Taxes on income	8,367	10,185	10,845	12,840
Net income	\$ 8,782	\$10,683	\$ 11,378	\$ 13,471
Earnings per capital and capital equivalent share (D)	\$.66	\$.78	\$.82	\$.98
1977				
Net revenues	\$65,726	\$69,222(A)	\$ 73,349(B)	\$ 74,252
Cost of sales (C)	34,122	35,001	38,816	36,040
Research and development costs	6,170	6,587	7,310	7,854
Marketing, general and administrative expenses	10,856	11,772	11,794	13,081
Taxes on income	7,255	7,899	7,681	8,595
Net income	\$ 7,323	\$ 7,963	\$ 7,748	\$ 8,682
Earnings per capital and capital equivalent share (D)	\$.55	\$.60	\$.58	\$.65

(A) Second quarter 1977 includes \$850,000 net proceeds from business interruption insurance.

(B) Third quarter 1977 includes \$1,520,000 net proceeds from the sale of marketable securities.

(C) Cost of sales includes a charge of \$2,000,000 in the third quarter of 1977, which was reduced by \$700,000 in the fourth quarter of 1977, in connection with the discontinuance of Intel's digital watch manufacturing subsidiary.

(D) Amounts prior to August, 1978 have been restated to reflect a five-for-four stock split in August, 1978.

Management's Discussion and Analysis of the Financial Summary

The following is Management's discussion and analysis of certain significant factors which have affected the Company's earnings during the years 1976 through 1978.

A summary of the period-to-period increases is shown below:

	Increase from prior period			
	(Thousands)			
	1978		1977	
Net Revenues	\$118,071	41.8%	\$56,570	25.0%
Cost of Sales	52,397	36.4	26,786	22.9
Research & Development	13,439	48.1	7,212	34.8
Marketing, General & Administrative	28,830	60.7	10,883	29.7
Provision for Taxes	10,807	34.4	5,187	19.8
Net Income	12,598	39.7	6,502	25.8

Net Revenues in 1978 were at record levels. The acceleration in revenue growth resulted from strong demand for Intel's products and our increasing capacity to produce them as well as from new products. Intel's growth in 1978 has been limited by our ability to expand production rather than by the available market for products.

Cost of Sales as a percentage of Net Revenues was 49.0% in 1978, compared to 51.0% and 51.9% in 1977 and 1976, respectively. The continued slight decline in 1978 results from decreased manufacturing costs which are mostly offset by large price decreases for a number of products. Additionally, product mix changed significantly as new products were introduced which sometimes rendered older lower margin products obsolete. The recent changes cannot be taken as a trend, but should rather be viewed as normal fluctuations that can be expected.

Research and Development expenses in 1978 were a higher percentage of Net Revenues, 10.3% as compared to 9.9% in 1977 and 9.2% in 1976. This higher level in 1978 is attributable to Management's continued commitment of sizeable portions of Intel's resources to develop new products necessary to remain competitive. Such new products are increasing in complexity and as a result greater research and development efforts are required to bring the products to market. No assurance can be given that such research and development expenditures will result in marketable products, nor that such products, if marketed, will be profitable.

The Company's increased expenditures resulted principally from an increase in the staff of engineers and scientists engaged in research and development.

Marketing, General and Administrative expenses for 1978 were 19.1% compared to 16.8% in 1977 and 16.2% in 1976. The year-by-year increases have been deemed necessary by Management to respond to increased competition in some areas and additional marketing and sales effort, including after sales support, required for Intel's customers because of the increasing complexity and sophistication of Intel's products. In addition, administrative costs have increased as the Company has grown and diversified geographically.

Provision for Taxes have declined over the last several years. Tax expense in 1978 was 48.8% of income before taxes on income, 49.8% in 1977 and 51.0% in 1976. This decrease is principally attributable to increasing amounts of foreign income and amortization of investment tax credits.

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Consolidated Statement of Income

Years ended December 31, 1978 and 1977

(Thousands—Except Per Share Amounts)

	1978	1977
Net revenues (Note 1)	\$400,620	\$282,54
Costs and expenses (Note 1):		
Cost of sales	196,376	143,979
Research and development	41,360	27,921
Marketing, general and administrative	76,333	47,503
	314,069	219,403
Income before taxes on income	86,551	63,146
Taxes on income (Note 2)	42,237	31,430
Net income	\$ 44,314	\$ 31,716
Earnings per capital and capital equivalent share (Note 1)	\$ 3.24	\$ 2.38

See accompanying notes.

Consolidated Statement of Shareholders' Equity

Years ended December 31, 1978 and 1977

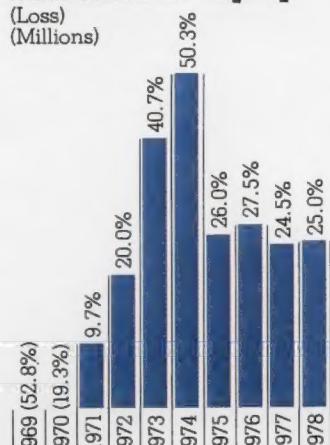
	Capital Stock		
	Number of Shares	Amount	Retained Earnings
(Thousands)			
Balance at December 31, 1976 (Note 1)	12,634	\$50,845	\$ 58,615
Proceeds from sales of shares through employee stock participation plan and upon exercise of employee stock options and tax benefit thereof (Notes 1, 2 and 4)	263	7,766	—
Net income	—	—	31,716
Balance at December 31, 1977 (Note 1)	12,897	58,611	90,331
Repurchase and retirement of outstanding capital stock	(5)	(18)	(201)
Proceeds from sales of shares through employee stock participation plan and upon exercise of employee stock options and tax benefit thereof (Notes 1, 2 and 4)	385	12,025	—
Net income	—	—	44,314
Balance at December 31, 1978	13,277	\$70,618	\$134,444
			\$205,062

See accompanying notes.

**Shareholders'
Equity**
(Millions)



**Return on
Shareholders' Equity**
(Loss)
(Millions)



Intel Corporation
Consolidated Balance Sheet
 December 31, 1978 and 1977

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	1978	1977
	(Thousands)	
Assets		
Current assets:		
Cash	\$ 12,278	\$ 5,991
Short-term marketable interest-bearing investments, at cost which approximates market	15,995	33,472
Accounts receivable, net of allowance for doubtful accounts of \$3,091,000 (\$1,710,000 in 1977)	98,183	56,451
Inventories (Note 1):		
Materials	19,212	12,819
Work in process	25,424	16,133
Finished goods	7,079	4,725
	51,715	33,677
Prepaid taxes on income (Note 2)	15,524	9,968
Other assets	2,730	1,570
Total current assets	196,425	141,129
Property, plant and equipment (Note 1):		
Land and buildings	54,419	33,725
Machinery and equipment	114,740	65,261
Equipment leased to others	9,946	6,933
Construction in progress	32,411	4,964
	211,516	110,883
Less accumulated depreciation and amortization	51,376	30,766
Net property, plant and equipment	160,140	80,117
	\$356,565	\$221,246
Liabilities and Shareholders' Equity		
Current liabilities:		
Notes payable (Note 3)	\$ 43,638	\$ —
Accounts payable	22,091	12,438
Deferred income on shipments to distributors (Note 1)	26,045	14,335
Accrued liabilities	19,203	15,221
Income taxes payable (Note 2)	18,298	17,659
Total current liabilities	129,275	59,653
Deferred taxes on income (Note 2)	14,328	8,713
Unamortized investment tax credit (Note 2)	7,900	3,938
Commitments and contingencies (Notes 2 and 5)		
Shareholders' equity (Notes 1, 2 and 4):		
Capital stock, no par value, 25,000,000 shares authorized; shares issued and outstanding—13,277,000 (12,897,000 at December 31, 1977)	70,618	58,611
Retained earnings	134,444	90,331
Total shareholders' equity	205,062	148,942
	\$356,565	\$221,246

See accompanying notes.

Intel Corporation
Consolidated Statement of Changes in Financial Position
 Years ended December 31, 1978 and 1977

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	1978	1977
	(Thousands)	
Working capital provided by operations:		
Net income	\$ 44,314	\$31,716
Charges to income not involving the current use of working capital:		
Depreciation	24,134	15,833
Noncurrent portion of deferred taxes on income and deferred investment tax credits	9,577	2,228
	78,025	49,777
Working capital provided by proceeds from sales of shares through employee stock participation plans and upon exercise of employee stock options and tax benefits thereof, net of repurchased shares	11,806	7,766
	89,831	57,543
Working capital used for additions to property, plant and equipment	104,157	44,881
Increase (decrease) in working capital	\$14,326	\$12,662
Changes in components of working capital:		
Current assets increase (decrease):		
Cash and short-term investments	\$(11,190)	\$13,080
Accounts receivable	41,732	12,135
Inventories	18,038	6,148
Prepaid taxes on income and other assets	6,716	4,267
	55,296	35,630
Current liabilities (increase):		
Notes payable	(43,638)	—
Accounts payable	(9,653)	(3,051)
Deferred income on shipments to distributors	(11,710)	(6,689)
Accrued liabilities	(3,982)	(4,311)
Income taxes payable	(639)	(8,917)
	(69,622)	(22,968)
Increase (decrease) in working capital	(14,326)	12,662
Working capital at beginning of year	81,476	68,814
Working capital at end of year	\$ 67,150	\$81,476

See accompanying notes.

1 Accounting Policies

Basis of presentation The consolidated financial statements include the accounts of Intel and all of Intel's subsidiaries after elimination of intercompany transactions. For information regarding Intel's foreign operations see Note 6.

Inventories Inventories are stated at the lower of cost or market. Cost is computed on a currently adjusted standard basis (which approximates average or first-in, first-out cost) for work in process and finished goods and on a first-in, first-out basis for materials. Market is based upon estimated realizable value reduced by normal gross margin.

Property, plant and equipment Property, plant and equipment are stated at cost. Depreciation is provided principally by use of the straight-line method over the estimated useful lives of the assets for financial reporting purposes (accelerated methods for tax purposes).

Deferred income on shipments to distributors

Certain of Intel's sales are made to distributors under agreements allowing right of return and price protection on merchandise unsold by the distributors. Because of the rapid technological obsolescence in the industry, Intel defers recognition of such sales until the merchandise is sold by the distributors.

Earnings per capital and capital equivalent share

Earnings per share are computed using the weighted average number of capital and capital equivalent shares outstanding. Capital equivalent shares consist of shares issuable under employee stock option plans (Note 4) computed on the treasury stock method.

Capital stock In August, 1978, Intel increased its authorized shares from 20,000,000 to 25,000,000 and declared a five-for-four stock split. Number of shares and per share amounts for periods prior to August, 1978 have been restated to reflect the effects of the stock split.

2 Taxes on income The provision for taxes on income is made up of the following components:

	1978 (Thousands)	1977
Federal:		
Current	\$21,131	\$22,372
Investment tax credits deferred—net	3,962	1,958
Deferred (prepaid)	2,200	(2,848)
	27,293	21,482
State:		
Current	6,532	4,996
Deferred (prepaid)	(827)	(482)
	5,705	4,514
Foreign:		
Current	10,822	6,007
Deferred (prepaid)	(1,583)	(573)
	9,239	5,434
	\$42,237	\$31,430

Intel accounts for investment tax credits using the deferral method, wherein the credits are accounted for as a reduction of the federal provision for taxes ratably over the useful lives of the related assets. \$1,522,000 and \$745,000 of investment tax credits were amortized in 1978 and 1977, respectively. 'Investment tax credits deferred—net' represents the difference between the amount of investment tax credit used to reduce current federal income taxes and the amount amortized for financial statement purposes.

Deferred and prepaid taxes on income result from timing differences in the recognition of certain revenue and expense items for tax and financial reporting purposes. Timing differences relate primarily to franchise tax accruals, deferred income on shipments to distributors and undistributed income of Domestic International Sales Corporations and foreign subsidiaries.

Income taxes payable were reduced by \$4,576,000 in 1978 (\$3,379,000 in 1977) as a result of tax deductions arising out of the exercise of nonqualified stock options and disqualifying dispositions of stock acquired under the Company's qualified plans (Note 4).

The Company's income tax returns for 1972, 1973, and 1974 are presently under examination by the Internal Revenue Service. Management does not anticipate any material effect upon the results of operations or the financial position of the Company as a result of these examinations. The Company's cost data supplied to the U.S. Customs Service for 1975 has been examined with no significant adjustments.

3 Notes payable Notes payable at December 31, 1978 include \$29,051,000 which are borrowings under established lines of credit (both foreign and domestic) totaling \$75,000,000 at December 31, 1978. The unused portions of lines of credit generally are subject to withdrawal at the bank's option.

The following information relates to the aggregate of bank borrowings during 1978:

Maximum outstanding at any month end	\$43,638,000
Average daily borrowings outstanding	\$11,297,000
Weighted average interest rate at year end	9.49%
Weighted average interest rate during the year (actual interest expense divided by average daily borrowings outstanding)	7.33%

The Company complies with compensating balance requirements equal to 10% of certain of these lines of credit. Such compensating balance requirements do not legally restrict the use of cash.

4 Employee stock option and stock participation plans

Employee stock option plans Under Intel's Non-Qualified Stock Option Plan, officers and key employees may be granted options to purchase shares of Intel's authorized but unissued capital stock at not less than 85% of the fair market value at date of grant. Generally, options become exercisable at the rate of 25% per year commencing one to two years from the date of grant. The options expire ten years from the date of grant. No material charges have been made to income in accounting for options. Proceeds and income tax benefits realized by Intel as a result of transactions in these plans have been credited to capital stock (Note 2).

The Company's Qualified Stock Option Plan was terminated in 1978. No options were outstanding under this plan at December 31, 1977. In November 1978, an additional 2,000,000 shares were reserved by the Board of Directors (subject to shareholders approval) for issuance under a new Non-Qualified Stock Option Plan. Additional information with respect to employee stock options is as follows:

	Options Available for Grant	Outstanding Options Number	Aggregate Value	Price Per Share
(Thousands—Except Per Share Amounts)				
Balance at December 31, 1976	1,085	1,476	\$40,287	\$ 3.73 - \$61.60
Options granted (a)	(1,226)	1,226	40,807	\$30.00 - \$44.40
Options exercised	—	(201)	(2,146)	\$ 3.73 - \$42.50
Options cancelled (a)	864	(864)	(36,965)	\$ 3.73 - \$61.60
Reduction for termination of Qualified Plan	(243)	—	—	—
Balance at December 31, 1977	480	1,637	\$41,983	\$ 3.73 - \$54.94
Options granted	(754)	754	35,135	\$31.20 - \$60.00
Options exercised	—	(302)	(5,055)	\$ 3.73 - \$43.20
Options cancelled	419	(419)	(17,800)	\$ 3.73 - \$60.00
Additional shares reserved for granting under Non-Qualified Plan	2,000	—	—	—
Balance at December 31, 1978	2,145	1,670	\$54,263	\$ 3.73 - \$58.00
Options exercisable at December 31: 1978 1977		456	\$ 9,512	\$ 3.73 - \$58.00
		471	\$ 6,292	\$ 3.73 - \$54.94

(a) Includes in 1977 the cancellation and reissuance of options to officers and key employees at the then lower fair market value. Such cancellations and reissuance had no material effect on earnings per share.

Intel has reserved 110,000 shares of capital stock which represents Management's best estimate of the approximate number of shares that may be issued in connection with a stock compensation plan for certain key employees. Nothing has been earned or charged to income to date under this plan.

Employee Stock Participation Plan Under this plan substantially all employees are entitled to purchase shares of Intel's capital stock at 85% of the fair market value at certain specified dates. Of the 562,500 shares authorized to be issued under this plan, 418,500 shares are available for issuance at December 31, 1978. Employees purchased 83,000 shares in 1978 (61,000 in 1977) for \$2,394,000 (\$2,241,000 in 1977).

5 Commitments Intel leases a portion of its capital equipment and certain of its manufacturing facilities under leases which expire at various dates through 2033.

Rental expense was \$4,538,000 and \$3,092,000 in 1978 and 1977, respectively. The minimum rental commitments under all noncancelable leases with an initial term of one year or more are payable as follows: 1979—\$2,426,000; 1980—\$1,836,000; 1981—\$1,346,000; 1982—\$941,000; 1983—\$800,000; 1984 and beyond \$2,199,000.

Commitments for construction or purchase of property, plant and equipment total \$51,200,000 at December 31, 1978.

In November, 1978, Intel signed an agreement to acquire all of the outstanding common shares of MRI, Inc., a supplier of software products for data base management, in exchange for approximately 100,000 Intel capital shares. The transaction must be approved by the MRI, Inc. shareholders.

6 Industry segment reporting Intel Corporation and its subsidiaries operate in a dominant industry segment and are engaged primarily in designing, developing, manufacturing and marketing advanced semiconductor large scale integrated circuit components, commonly referred to in the industry as LSI components, and computer systems incorporating these components.

Intel's operations outside the United States are involved in assembly, testing and sales. Assembly and test facilities are maintained in Malaysia, the Philippines, and Barbados. Sales subsidiaries are located throughout Western Europe and in Japan. Only the operations of the United States and Western European geographic areas account individually for more than 10% of consolidated sales to unaffiliated customers or total assets.

Information about the Company's operations in different geographic areas for the years ended December 31, 1978 and 1977 is as follows:

	1978	1977		
	(Thousands)			
Sales and other revenue:				
Unaffiliated customers:				
United States				
Domestic	\$258,206	\$186,665		
Export				
Western Europe	43,247	40,072		
Canada	6,414	4,757		
Other	6,309	2,966		
Total export	55,970	47,795		
Western Europe	59,107	27,999		
Other foreign	26,495	16,645		
Other income	842	3,445		
	400,620	282,549		
Within Intel:				
United States	52,641	25,389		
Western Europe	3,497	3,099		
Other foreign	17,193	12,274		
Eliminations	(73,331)	(40,762)		
	—	—		
Net revenues	\$400,620	\$282,549		
Operating profits:				
United States	\$ 73,999	\$ 54,394		
Western Europe	14,924	9,345		
Other foreign	7,703	3,562		
General corporate expenses	(8,624)	(7,187)		
Unallocated	(1,451)	3,032		
Income before taxes on income	\$ 86,551	\$ 63,146		
Identifiable assets:				
United States	\$270,851	\$145,967		
Western Europe	29,463	14,831		
Other foreign	35,038	24,760		
Corporate assets	23,968	35,984		
Eliminations	(2,755)	(296)		
Total assets	\$356,565	\$221,246		

Transfers between geographic areas are accounted for at amounts which are generally above cost and are consistent with rules and regulations of domestic and foreign taxing authorities. Operating profit is total revenue less operating expenses. In computing operating profit by geographic area the following items have not been deducted: general corporate expenses, interest and income taxes.

Identifiable assets are those assets of the Company that are identifiable with the operations in each geographic area. Corporate assets are principally cash, short-term investments, and prepaid taxes on income. Additional combined financial information as to Intel's foreign operations is as follows:

	1978	1977
	(Thousands)	
Current assets	\$52,938	\$31,670
Current liabilities	28,887	13,225
Net property, plant and equipment	11,559	7,877

7 Replacement cost information (unaudited)

As required by the Securities and Exchange Commission, the Company will present unaudited replacement cost information in its annual report on Form 10-K, a copy of which will be available upon request. The information indicates that the replacement cost of productive capacity would exceed the amounts originally incurred to acquire such assets. The estimated amounts of depreciation based on average current replacement cost of productive capacity exceeded by an immaterial amount the related amounts based on historical cost. Supplementary information in the financial statements section of the Form 10-K will include a more comprehensive discussion of replacement cost information.

The amounts disclosed in the unaudited replacement cost information in the Form 10-K are based on hypothetical assumptions and substantial subjective judgements and may be affected by errors inherent in estimations. As discussed more completely in the Form 10-K, the replacement cost information should not be interpreted as indicative of the actual cost to be incurred in the future to replace the Company's productive capacity, nor should it be interpreted as indicative of the manner in which such capacity will actually be replaced. For the foregoing reasons, the Company makes no representation that the replacement cost information is useful.

8 Quarterly information

The unaudited quarterly information for the years ended December 31, 1978 and 1977 is presented on page 4 of this Annual Report.

Report of Certified Public Accountants

The Board of Directors and Shareholders
Intel Corporation

We have examined the accompanying consolidated balance sheet of Intel Corporation at December 31, 1978 and 1977, and the related consolidated statements of income, shareholders' equity and changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

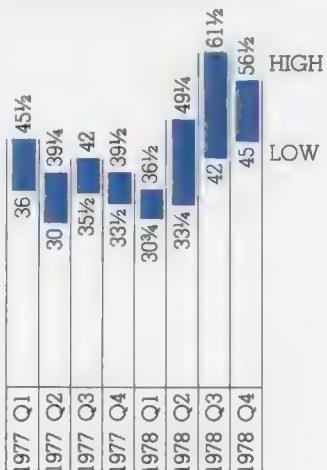
In our opinion, the statements mentioned above present fairly the consolidated financial position of Intel Corporation at December 31, 1978 and 1977, and the consolidated results of operations and changes in financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis during the period.

Arthur Young & Company

San Jose, California
January 12, 1979

Company's Stock

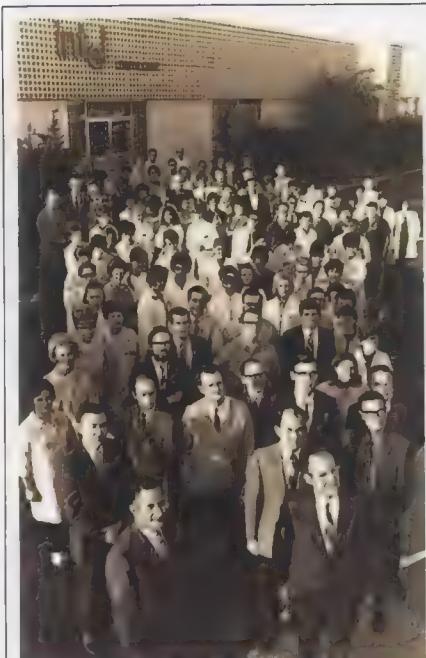
Intel stock is traded in the over-the-counter market and is quoted on NASDAQ and in the Wall Street Journal and other newspapers. Intel has never paid cash dividends and has no present plans to do so. The quarterly bid price ranges for the years 1977 and 1978 are shown below.*



* All prices are adjusted for the 5-for-4 stock split on August 4, 1978

The driving forces behind the accomplishments of the last ten years are, of course, Intel people. Change presents a challenge. Whether that change comes from technology, from growth or from new product areas, it requires an ever-increasing degree of capability from Intel people. We are dedicated to excelling in all activities we undertake.

Our guiding principle is that if Intel is to grow, its people must grow in capabilities. A growth company must be, among other things, an educational institution.



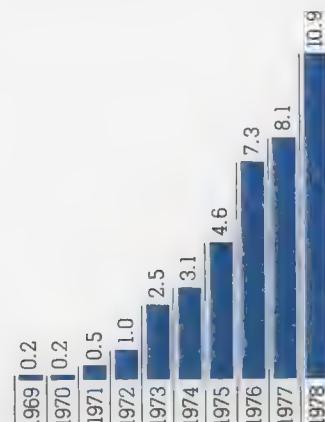
The entire Intel workforce—1970.

Training occurs at all levels of the company, from the executive staff to the new hire, and in all activities from technology to management. A corollary of that principle is that most of our future management will come from promotions within the company.

Educational activities include programs designed and taught by Intel people, classes conducted for us by outside educators, and provision for access to programs of the local educational institutions wherever we operate. The typical Intel employee spends several days each year either in teaching or attending classes.

In addition to formal training sessions, department operations review meetings are held regularly to inform Intel people of the department's progress and the problems faced in their own group or with other parts of the company. We view these meetings as essential not only to broaden our horizons but also to build Intel people into a team. Intel is proud of the accomplishments of its people over the last decade. Yet we strive to be our own worst critics so that others will not have to take that role.

Employees
(At Year End/In Thousands)





Intel started in the San Francisco Bay Area and contributed to the area's nickname of 'Silicon Valley.' The growth of the company and the growth of the area has made it increasingly apparent that a major part of our future growth must occur elsewhere. Our first steps in this direction were taken several years ago with the establishment of the Livermore, California wafer processing facility and our assembly plant in Penang, Malaysia. As growth accelerated, however, these steps were inadequate to accommodate our expansion, and the establishment of major new centers seemed advisable. The first of these new centers opened



Our original building in Mountain View, California—1968.

in Aloha and Hillsboro, Oregon, near Portland. In 1978, much of our total expansion occurred in Oregon, and nearly a quarter of our U.S.-based employees are now in this area. A third center is now being established near Phoenix, Arizona, with facilities planned in both Deer Valley and Chandler.

Growth in Silicon Valley has not stopped, however, and the construction of a new wafer processing and technology develop-

ment center is in progress in Santa Clara. Thus, we plan to grow in the three major geographic regions simultaneously.

The change to VLSI technology has impacted our facilities and employment in two essential ways. First, as the circuits become more complex, the assembly process becomes a small proportion of the total circuit-making activity, and much of it can be automated. The result has been a decline in the growth of our offshore assembly facilities. Second, the growing level of process sophistication is significantly increasing the cost of our necessary capital equipment. This trend toward more capital intensity and more employees in highly-skilled jobs is expected to continue.

Capital Investment

(Additions to Property,
Plant and Equipment)
(Millions)





Memory Components and Systems

18

Intel's pioneering development of semiconductor memory components has continued with the development of higher density, higher speed memory components sold into a rapidly expanding market. Memory components have typically served as the vehicle for proving and refining new technology used later for other products. Last year saw the establishment of the HMOS (high-speed metal-oxide-semiconductor) technology in the high-volume production of the 2147, a high-speed 4K static memory offering access and cycle times of 55 nanoseconds. This product has been the key to large contracts with several computer manufacturers.

The Intel-developed erasable programmable read-only memories (EPROM) have kept pace with the overall growth of the semiconductor market as higher density, more cost-effective EPROMs have been developed. In 1978 the 32K



The 1103 random access memory, introduced in 1970, made magnetic core memory obsolete.

EPROM was introduced, enhancing Intel's position as the leading supplier of these components.

Building on our strength as a producer of memory components, we established a capability to produce memory systems for digital equipment. Originally serving only the computer equipment manufacturers, this activity now accommodates end users of computers as well. This market is served by our Commercial Systems Division which is expanding into other memory-related computer equipment.

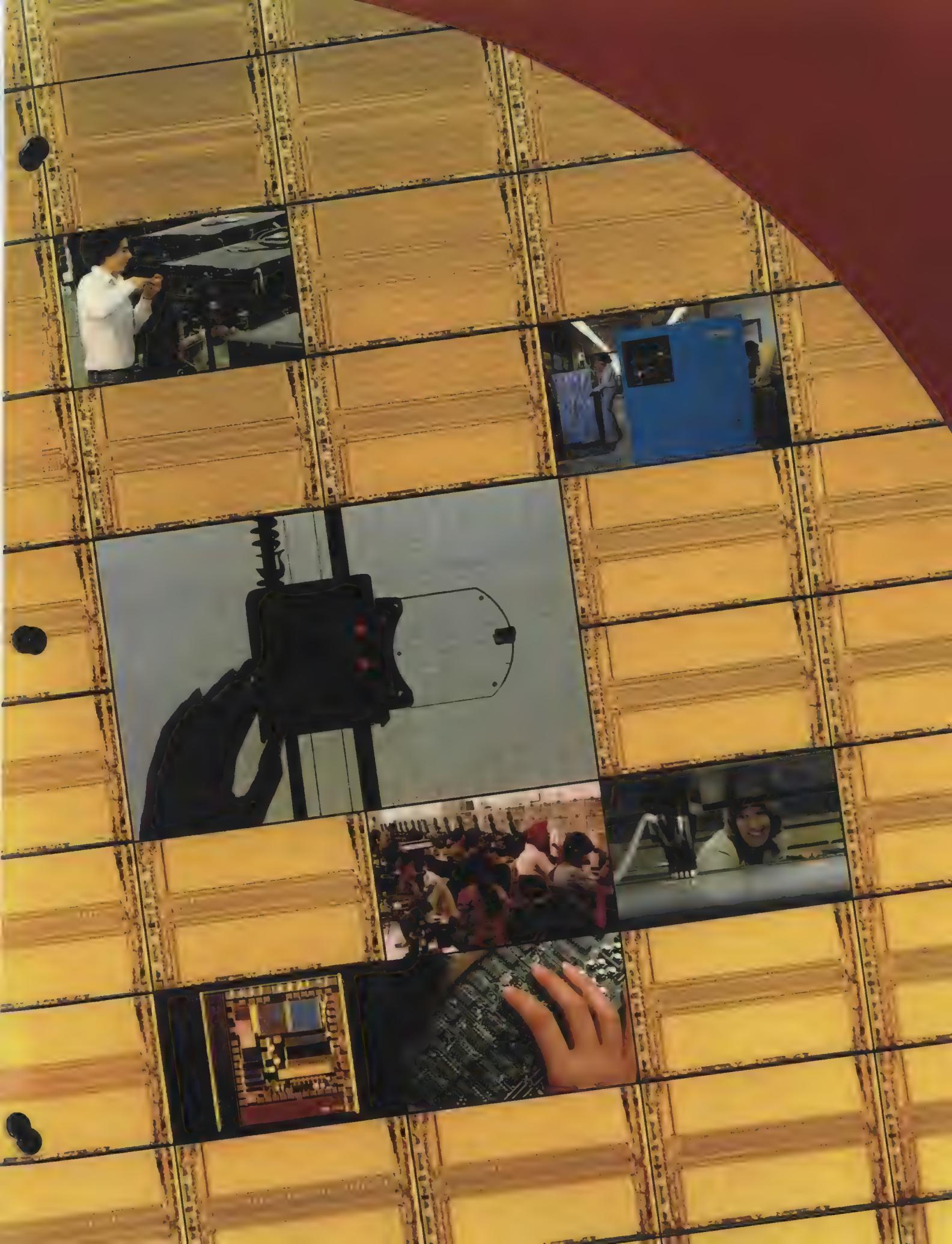
As can be seen by the phenomenal growth of the number of memory bits shipped, the market for memory seems nearly unlimited. This growth has been fueled by the continuing decline in the cost of memory as the number of bits-per-circuit has increased a thousandfold and cost per bit has decreased a thousandfold in the last decade. The next decade will see continuing advances in the technology which should continue to result in substantial growth in sales of semiconductor memories.

In 1977 we established Intel Magnetics to develop magnetic bubble memories. Development is progressing on schedule. Should it prove successful, bubble memories will provide another growth opportunity for Intel.

Intel Memory Bit Shipments
(Billions of Bits)

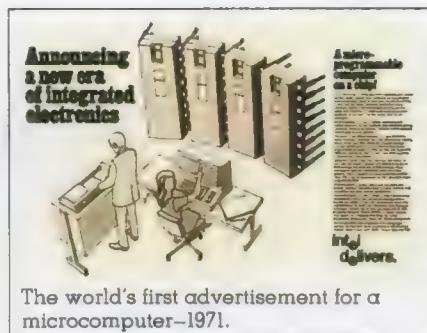


2732 32K EPROM Wafer



The descriptions, 'the most significant development since the transistor' and 'miracle chip', have been used to characterize the microcomputer, a product and concept developed by Intel. Since its development and introduction only seven years ago, the microcomputer has revolutionized the way computers are designed and applied. New ideas for its use are still evolving. Intel has maintained its leading position in microcomputers from the beginning, offering the industry's broadest selection of standardized microprocessor families.

Microcomputer components are expanding in several directions. The most obvious is the ever-increasing capability of the microprocessor as characterized by the 8086, a high-speed 16-bit processor we introduced in 1978, complete with software and design aids. We also



The world's first advertisement for a microcomputer—1971.

developed and introduced peripheral chips for the microprocessor to control memory transfer, communications, and input/output devices, thus taking the load from the central processor and increasing the total system capability. In addition, the trend to a higher level of integration resulted in single chip microcomputers with a wide range of options in memory size and input/output capability, characterized by our MCS-48® family. New technology has permitted the incorporation of analog-to-digital converters with the microcomputer on a single chip of silicon.

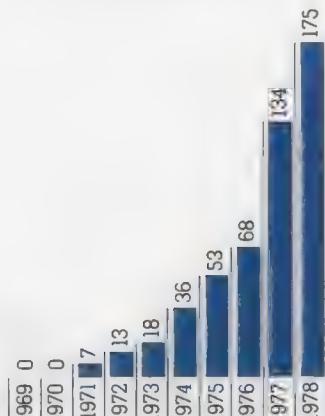
Microcomputer components are thus becoming families of devices

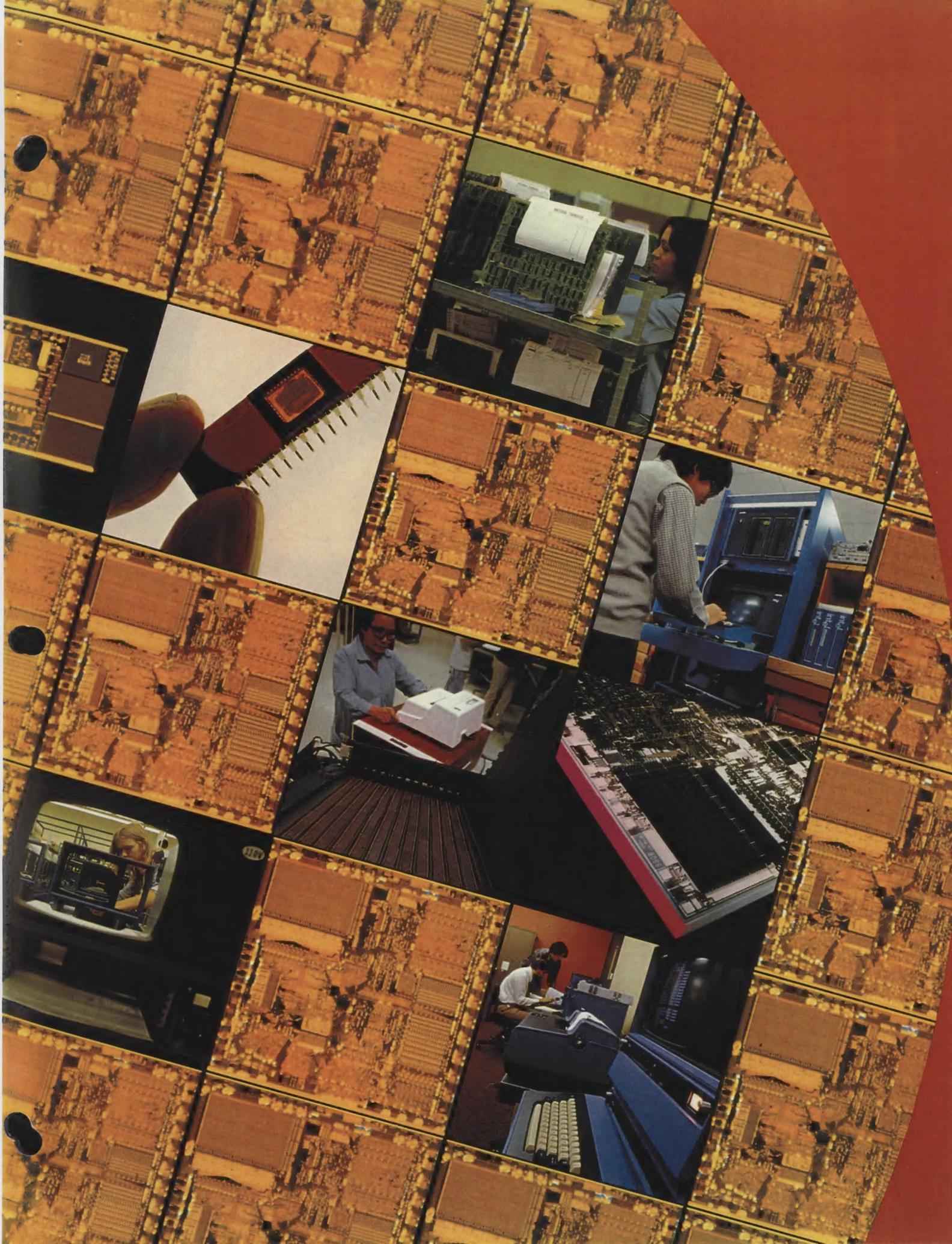
offering the equipment designer nearly ideal solutions for each design problem, with each new product introduction enhancing the utility of other members of the family.

Our Intellec® microcomputer systems, originally built to aid customers in their own design activities, have become an important adjunct to components sales. As design activities have concentrated more on microprocessors, microcomputer development systems have become as standard an instrument for the designer as was the oscilloscope earlier. Again, Intel pioneered this field, developing the original concept, and extending that concept through enhancements such as in-circuit emulation (ICE™), which permit the designer to debug both hardware and software simultaneously.

Building on the experience gained in microcomputer systems design, the group now offers a wide selection of microcomputer boards to equipment manufacturers as well as complete microcomputer systems.

Available Intel Microcomputer Products

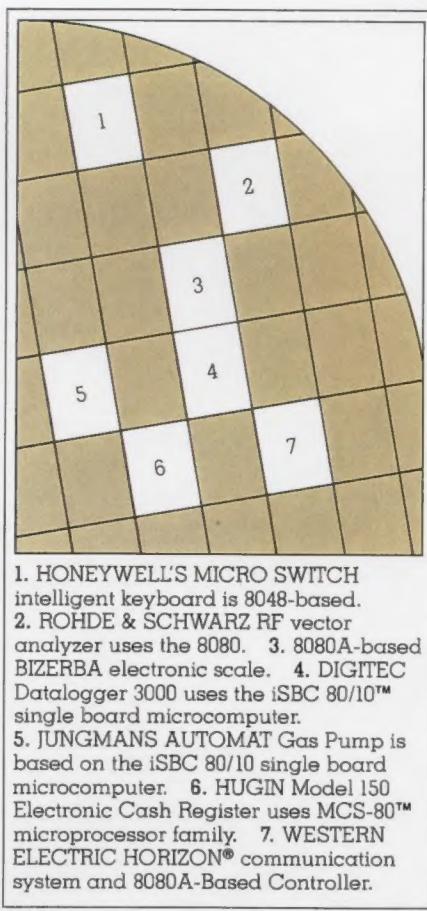




The significance of Intel's contribution can best be seen in its impact on the equipment manufactured by our customers. The most universal impact has been the continuing decline in the cost of data processing and digital control equipment.

For large data processing applications, the cost of memory has been reduced drastically, allowing more memory to be used with the concomitant increase in performance. Terminals have become widespread and are now familiar to most of us as a result of cost reductions from using the microprocessor. The cash register has become another data input device controlled by the microprocessor. Even the scales used to weigh produce in the checkout line at the supermarket use a microcomputer.

In telephone communications the microprocessor is providing the switching control, not only in private exchanges but in central offices as well. With the introduction of low-cost LSI coder-decoders (CODEC) to digitize voice, the integration of voice and data communications is being simplified.



Industrial control and automation is expanding its use of digital techniques to achieve lower cost through the use of microcomputers, enhancing the productivity of that industrial sector.

A similar microprocessor controller is being designed into new automobiles to improve drive train efficiency while meeting the new, more stringent pollution requirements.

The microprocessor is reaching the consumer in other ways as well. Microprocessors are being used in appliance controls, games, educational toys, heating systems, burglar alarm systems and telephone dialers, among others. The home computer offers more capability by far than the first giant computers, and is priced to reach the hobbyist.

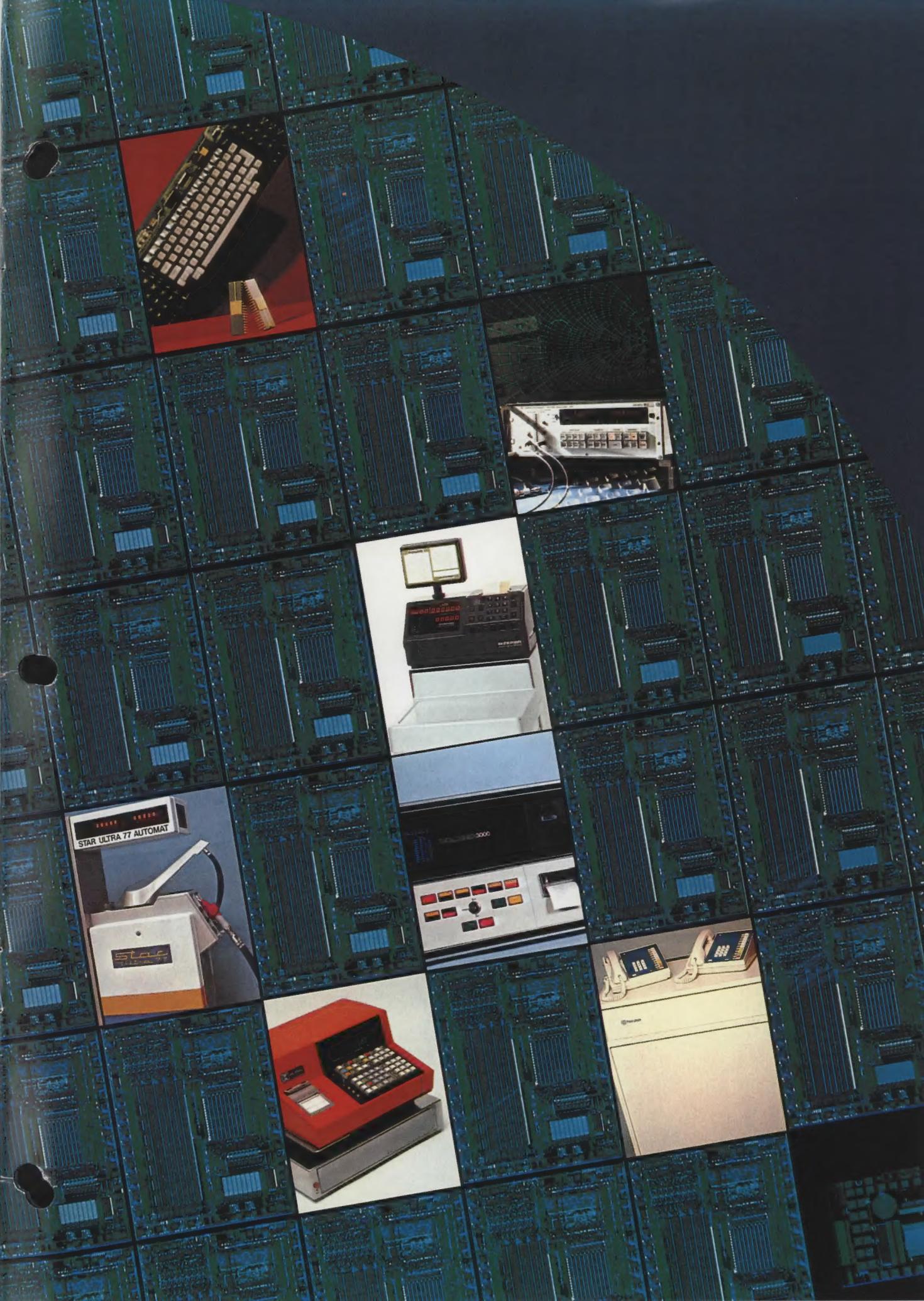
Even so, the widespread use of low-cost digital electronics is just beginning. Any activity in which information is to be transmitted or acted upon is a potential application. Routine decisions can be handled automatically. The second industrial revolution of enhancing information handling as contrasted with enhancing muscle power, is upon us.

We are proud of the contributions Intel has made during the last ten years of this revolution, and we expect to remain at the forefront through the next decade.

Research & Development
(Millions)



8022 One Chip Microcomputer (with integral A/D converter) Wafer



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Arthur Rock*†
Vice Chairman; General Partner
of Arthur Rock & Associates,
venture capital investors
Edward L. Gelbach
Senior Vice President,
Intel Corporation
Andrew S. Grove
Executive Vice President and
Chief Operating Officer,
Intel Corporation
D. James Guzy†
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manufacturer of electronic
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Richard Hodgson†
Senior Vice President of Interna-
tional Telephone and Telegraph
Corporation, manufacturer of
telecommunications equipment
Sanford Kaplan†
Industrialist
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President and Chief Executive
Officer, Intel Corporation
Max Palevsky
Industrialist
Harry A. Steinberg
President, Executive Action, Inc.,
a management consulting firm in
the computer industry.
Charles E. Young
Chancellor of the University of
California at Los Angeles

*Member of the Executive Committee
†Member of the Audit Committee

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President and Chief Executive
Officer
Robert N. Noyce
Chairman of the Board of Directors
Andrew S. Grove
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Chief Operating Officer
Edward L. Gelbach
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Microcomputer Components Division
Ronald J. Whittier
Vice President and General Manager,
Memory Components Division

**Transfer Agent
and Registrar**

Wells Fargo Bank
San Francisco, California;
Wells Fargo Securities
Clearance Corp.
New York, New York

**Certified Public
Accountants**

Arthur Young & Company
San Jose, California

Corporate Headquarters

3065 Bowers Avenue
Santa Clara, California 95051

**Additional Copies of This Report
are Available at the Following
Locations:**

Intel Corporation
3065 Bowers Avenue
Santa Clara, CA 95051
Intel International Corp. S.A.
Rue du Moulin à Papier 51, Boite 1
B-1160 Bruxelles, Belgium
Intel Japan K.K.
Flower Hill-Shinmachi East Bldg.,
1-23-9 Shinmachi, Setagaya-ku
Tokyo 154, Japan

Form 10-K

If you would like to receive,
without charge a copy* of the
Corporation's 'Form 10-K' which
will be filed with the Securities
and Exchange Commission prior
to March 31, 1979 for the 1978 year,
please send your request to:
Roger S. Borovoy, Secretary
Intel Corporation
3065 Bowers Ave.
Santa Clara, Ca. 95051.

*No exhibits will be sent unless
specifically requested. (There will be a
nominal charge for exhibits.)

Annual Meeting

The Intel Annual Meeting of
Shareholders will be held at 4:00 P.M.
April 18, 1979 at the Mediterranean
Center of the San Jose Hyatt
House, 1740 N. First Street, San
Jose, California.

